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DESCRIPTION $y=3 w 0 x^{4} y=13$

FAULS OF NIAGARA.

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## DESCRIPTION

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OF＇THE：

## FALLS OF NIAGARA，

NOW EXHIBITING

NEW YORK．
PAINTED BY ROBERT BURFORD,

FROM DRAWINGS TAKEN BY HIM IN THE AUTUMN OF 1832.

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[1834 ?]
$$

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# THE FALLS OF NIAGARA. 

"The roar of watery!-from the headlong height
[Niagara] cleaves the wave-worn precipice;
The fall of waters !-rmpid as the light,
The flashing mass foanss, slinking the abyss ;
The liell of waters !-where thoy howl and hiss,
And boil in endless torture ; while the sweat
Of their great agouy, wrung out from this
Their Phlegethon, curls round the roeks of jet
That gird the gulf around, in pitiless lorror set,
"And mounts in spray the skies, and thence again
Returns in an unceasing shower, which round
With its unemptied cloud of gentle rain
Is an eternal April to the ground,
Making it all one emeruld:-how profound
The gulf! and how the giant element
From rock to rock leaps with delirious bound,
Crushing the cliffs, which, downward worn and rent
With his fierce footsteps, yield in chasms a fearful vent
"To the broad column which rolls on, and shows
More like the fountain of an infant sea
'Torn from the womb of inountaius by the throes
Of a new world, than only thus to be
Parent of rivers, which flow gushingly,
With many windings, through the vale :-Look back !
Lo! where it comes like nn sternity,
As if to sweep down all things in its track,
Churming the eye with dread-a matchless cataract,
" Horribly beautifu! ! but on the verge,
Froun side to side, beneath the glititring morn,
An Iris sits, amidst the infernal surge,
Like Hope upon a death-bed, and, unworn
Its stendy dyes, while all arnund is toro
By the distracted waters, bears serene
Its brillinnt hues with all their heams unshom;
Resembling, 'mid the torture of the scene,
Love watching Muduess with unalicrable mien."

Byron.
The Falls of Niagara are justly considered one of the greatest natural curiosities in the known world; they ure without parallel, and exceed immeasurably all of the same kind that have ever heen seen or imagined; travellers speak of them in terms of admiration and delight, and aeknowledge that they surpass in sublimity every description which the power of language can afford; a Panorama*
*An intelligent traveller says, "All parts of the Niagara are on a scale which baffles every attempt of the imagination, and it were ridieulous therefore to think of deseribing it ; the ordinary means of description-I mean analogy, and direct comparison with things which are more accessible -fail entirely in the case of that amazing cataract, which is altogether unique; yet a great deal, I am certain, might be doae by a well-executed Pancrama : an artist well versed in this peculiar sort
alone offers a sca'e of sufficient magnitude to exhibit at one view (which is indispensable) the various parts of this wonderful scene, and to convey any adequate idea of the matchless extent, prodigious power, and awtil appearance, of this stupendous phenomenon of nature; but the scene itself must be visited, to comprebend the feeling it produces, and to appreciate the petrifying influence of the tremendous rush of water, the briling of the mighty flood, and the deep and unceasing roar of the tumultuous ahyss; "it strikes upon the soul a sense of majestic grandeur, which loss of life or intellect can alone olliterate."
The drawings for the present Panorama were tuken near the Table Rock-a commanding situation, affording the most comprehensive, and, at the same time, one of the finest views of this imposing scene. Immediately in frout of the spectator, are the Falls, in simple and subline dignity, an ocean of waters three quarters of a mile in width, precipitated with astonishing graudeur, in three distinct and collateral streams, down a stupendous precipice upwards of 150 feet in height, on the rocks below, from which they rehound, converted, by the violence of the concussion, into a broad sheet of foam as white as snow ; pyramidical clouds of vapor or epray rise majestically in misty grandeur from the abyss, sparkling here and there with prismatic colors, and a rainbow of extraordinary beauty, and peculiar brilliancy, heightens the scene, by spauning the Great Fall. Above are seen the agitated billows, and white-crested breakers of the Rapids, tumultuously hurrying towards the precipice, bounded on the one side by the luxuriant foliage of Goat Island, and on the other ly the fertile and thickly-wooded shores of Upper Canada. Below, the river winds in a stream, bright, clear, and remarkably green, between bold and rugged banks, richly colored by both wood and rock. The surrounding scenery, although it must be viewed with comparative indifference, whilst the mind is absorbed in contemplating the grandeur and extent of the cataract, is also in excellent keeping; stupendons and lofty banks, immense fragments of rock in fantastic forms, impenetrable woods appronching their very edge, the oak, ush, cedar, maple, and other forest trees of extraordinary growth and singular shape, the pine, and various evergreens, brushwood peeping from the fissures, and beautitul creeping plants clinging to the perpendicular sides of the rocks, presenting a vast variety of foliage and diversity of hue, rendered still more pleasing bythe first frosts of autumn having changed the leaves of some of the more tender to every shade of color, from the brightest yellow to the deepest crimson, thus combining every thing that is essential to constitute the sublime, the terrific, and the picturesque.

The Niagara strait-which forms the boundary line between the British possessions and the United States-is a grand natural canal, hy which the superabundant waters of Lake Erie are poured into Lake Ontario. It is a continuation of the River St. Lawrence. Its length from lake to lake is 37 miles, following the windings of the stream, its gencral course weing northerly, and it varies in breadth from 30 rods to 7 or 8 miles.* In this distunce the witer sustains a fall of 334 feet, thus calculated:-letween Lake Eric and the Rapids, 16 feet; in the Rapids, 58 feet; in the Crescent Fall, 154 feet; and the remainder before it reaches Lake Ontario. In the early part of its course, the river is broad and tranquil, and presents a scene of the most profound repose, its waters being nearly level with its shores, and the large and beautiful island, Ownungah, dividing it into two streams for a considerable distance. At Chippewa and

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$\dagger$ Lake mean de the sea. and is 5 ? Huron, n the sea, a
$\ddagger$ Thes but there memory
hich is indisany adequate rance, of this ited, to comluence of the le deep and al a sense of " able Rock-a te saine time, front of the waters three eur, in three ds of 150 feet y the violence ; pyramidical on the abyss, extraordinary he Great Fall. of the Rapids, re side by the hickly-wooded ght, clear, and by both wood ll comparative grandeur and Id lotiy banks, s approaching cextruordinary wood peeping perpendicular plile, rendered the leaves of st yellow to the constitute the

British possessuperabunctant inuation of the , following the nd it varies in $r$ sustains a fall 16 feet; in the inder before it $r$ is broad and $s$ waters being 1, Owanungah, Chipuewa and
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which is ahout 6d on each side of il id Island, where it

Schlosser, about two miles nlove the 「'alls, where the navigation ends, a considerable curront is jerceptible, and the glassy smoothness is disturbed by slight ripples; the shores now contruct considerably, and the bed of the river lbegins to slope; the water shortly after becomes much agitated, und the magnificent Kapids commence; rock after rock chafes the strean, which becomes perfectly white, and rushes with frightinl velocity to the edge of "ise precipice, over which it plunges in nn unexnmpled volunne, witl territic innpetuosity, heing unquestionahly the greatest muss of water that is poured down mey fall, either in the new or old world. 'The qumutity of water thus projected is computed to be not less than one hundred millions of tons per homr.* Lowever great this quantity may seem, yet it is probably not overrated ; tor it must be remembered, that the four great lakes, which, from their size, might be more properly termed inland sens, with all the mumerons and large rivers which flow into them, covering a surface of 150,000 spuare miles, and containing mearly one half of the firesh water on the fuce of the glohe, have only this one outlet for their superfinous waters. $\dagger$ The tremendous romr of this great boly of water dushing into the aliyss below, is of a most extraordinary description, difficult to explain, not altogether dentining, and, althongln monotomons, it sloes not prodime disigrecable sensations. Inmediately after the fall, the river subsides from this state of sublime agitation, and then agnin rolls with impetuons veloeity, in a narrow channel, through a deep dell, bordered by rigrged and perpenelicnlar hanks, as far as Queenston and Lewiston.

From Lake Erje to Lewiston mul Quecmston, the face of the country presents the appearanco of a vast level plain, with the exception of the space between Chippewa aud the Falls, where, in about two miles, the ground rises about 125 feet, und the river, as before mentioned, deseruds abont 58 ; just above Queenston and Lewiston, this tuble land abruptly terninutes, and sinks to a plinin about 100 feet ahove the level of Lake Ontario. Over this precipice, it is by some supposed that the river, in remote nges, poured its wnters; and that its continued and violent action has gradually worn awny the rocks, und carried back the Falls to their present situation. But a different opinion lias been held by otliers, and much been written to prove that the river flows throngh a natural ravine. Through the whole leugth of the ravine, the horizontal strata present the same appearance on both its sides; the upper reek (beneath the eommon dilivitun or superficial soil of the conntry) being brown fetid limestone, (the "geodiferous limerock" of Eaton, 70 or 80 fieet thiek, lying upon an argillo-calcurcous slate, ("calciferous slate" of Eaton, or shale, whicl, is about 80 teet in thickness. Under this reposes a series of arenaceous rocks, highly ferrurinous in their superior portions, and very argillaceons in the inferior: By the violent blasts of wind, which urise from the abyss, and the eontinual action of the water, the shale is rapidly worn away, and the mass of limestone, being left withont afondation, falls, from time to time, in enormons masses, particularly after severe fiosts. $A$ person who had resided at the Falls for 36 years, declared that they had receded within his memory 40 or 50 yards, whieh was corroborated by nnother, who hod been in the neighborhood for 40 years. $\ddagger$ An inmense portion broke fiom the Horse-shoe Fall on the 28th of Decenmer; 1828 , and tumbled into the ulyss with a slock like an earthquake. It wonld tie difficult to form a reasonable cateulation as to the jeriod which has elapsed since the wnters first liegan to open the gorge, arlmitting that they have thus cut their way back. Professor Lyell computes that, if the ratio of retrocession has never been exceeded, it innst hare required nearly $\mathbf{1 0 , 0 0 0}$ yeais for the

[^1]exeavation; and, by the same calculation, it will require at least 30,000 to reach Lake Erie; but when the river was confined to a narrower channel, the operation might have been much quieker. The distance from the mouth of the ravine is nearly seven miles, the average breadth 1200 feet. Up to the period when Goat Island divided the Fall, the whole force of the water would have been exerted on this surface ; since that time, the operative power of the water has been extended to nearly 3500 feet: this diminisbed action would necessarily be attended by a returdution in the retrocession of the cataruct. The Fall has also reached a point where, in addition to the thickness of the limestone leds, numerous layers of chert give additional strength and durability.
A communication has within a few years been opened between the western lakes and the sea, by the grand Erie Caual, from Lake Erie to the Hudson, and by the Welland Canal, between Lake Erie and Lake Ontmio. The Welland Caual commences at Port Colburn, in Gravelly Bay, passes the river Chippewa by means of a noble uqueduet, and enters Lake Ontario at Port Dallousie. The work was commenced in 1824 , and was completed in five years; it is 43 miles in length, 58 feet in width, and $8 \frac{1}{2}$ feet in depth; it admits vessels of 125 tons burden ; the whole descent is 342 feet, which is accomplished by 37 loeks. At the Deepent, about 8 miles from the Falls, 1,477,700 cubie feet of earth were removed; and at the Mountain Ridge, where the descent is made, 70,000 cubic yards of roek. The idea originated with Mr. W. H. Merritt, of St. Catherine's, and the work was planned and accomplished, with the assistnnce of the British government, by the Camada Land Company, at the expense of $£ 200,000$. This caual is now the property of the government.

Little was known of the Fulls of Ningara previous to the commencement of the last century. They were described by Futher Hemuepin in 1678, and by La Hon$\tan$ in 1687 . In the latter part of the last century, they were visited by several travellers; but it is only within a few years thut they have been a fashionable place of resort. The number of visitors is now probubly from 20,000 to 30,000 annually; and each successive year grently ontnumbers its predecessor.

The immediate neighborhood of the Falls, and the banks of the strait, have been the scenes of a succession of actions, attended with the horrors of civil war, between the British and American troops in 1812-1814, particularly four desperate encounters in July, August, and September, of the latter yeur.

Note.-For most of the data in this Description, we are indebted to the valuable "Manual for the Use of Visiters to tive Falls of Niggara," \&c., by Mr. Josepil W. Ingraham, of Bosion; which we have been kindly permitted by the author to use for this purpose; and to which we would refer for a more full description ef this great wonder of the world. Mr. Ingraham has been engaged for four years in preparing an extensive work descriptive of these Falls, and the country adjacent to them, which is expected soon to issue from the press, and which is to be accompanied by copious Maps, Plans, Elevations, Profiles, Views, \&c.

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## EXPLANATION OF THE ENGRAVING.

## 1.—Goat Island.

As island, about half a mile in length, inserted like a wedge between the Falls, presenting its broadest end, which is about 1320 feet, to the precipice; it is thickly covered with wood, and exhibits a variety of romantic scenery. It is approached over two bridges thrown from the main shore to Bath Island, and from Bath Island to this. A path winds round it, from which various other paths diverge to the most advantageous points for viewing the Rapids and Falls.
It is reported that this island was first visited during the Canadian war of 1755, by General Putnam, who, in consequence of a wager having been laid that no man in the army would dare to attempt a descent upon it, made a successful effort; he dropped down the river, from a considerable distance above, in a boat, strongly secured by ropes to the shore, by which means he was afterwards safely landed. When the island was first explored, after the construction of the bridge from the main shore, many dates were found cut upon the trees, one of which was as early as $\mathbf{1 7 4 5}$.
A young Englishman, named Francis Albot, of respectuble connections, either through misfortune or a morbid state of mind, which made liim desire seclusion, took up his residence on this island, and in the neighborhood of the Falls, for two years; and beeume so fascinated with the solitude and the seenery, that no inducement could divert his thoughts, or draw him from the spot, where he aequired the name of the "Hermit of the Falls." The following account of him is condensed from one furnished by Mr. Ingraham.
He arrived at the Falls, on foot, in June, 1820, dressed in a loose gown or eloak of a chocolate color, carrying under his arm a roll of blankets, a flute, a portfolio, and a large book, whieh constituted the whole of his baggage. He took up his abode, in the first instance, in the small inn of Ehenezer O'Kelly, ou the New York side, stipulating that the room he oceupied should be exclusively his own, that he should have his table to himself, and that certain parts of his cooking only should be done by his host. He then repaired to the library, where he grave his name, and took out a book, purchased a violin, and borrowed some music-books. The following day he again visited the library, expatiated largely, with great ease and ability, on the beautiful scenery of the Falls, and declared lis intention of remaining at least a week; for " $n$ traveller might as well," he said, "in two days examine in detail the various museums and curiosities of Paris, as becoms: acquainted with the splendid seenery of Niagara in the same space of time." On a subscquent visit, he declared his intention of staying at least a month, perhaps six. Shortly after, he determined on fixing lis abode on Goat Island, and was desirous of erecting a hut, in which he might live quite secluded. The proprietor of the island did not think proper to grant this request, but permitted him to oecupy a small room in the only loouse on the island, the family in which occasionally furnished him with bread and milk, though he more generally dispensed with these, providing, and always cooking, his own food. During the second winter of his seclusion, the family removed, and to the few persons with whom he held communication, he expressed great satisfaction at being able to live alone. For some months le enjoyed this seclusion; but another family hiving entered the house, he quitted the island, (having resided on it twenty months,) and built himself a small hut on the main shore, about thirty rods below the Schlosser Fall. He lived to occupy his new residence only about two months. On the 10th of June, 1831, he was seen to bathe twice, and was observed by the ferry-man to enter the water a third time about two o'elock in the afternoon: his clothes remaining for some
hours where he had deposited them, an alarm was created, and an ineffectual search was made for hian. On the 21 st, his hody was taken ont of the river at Fort Ningara, and, the next day, was decently interred in the burial-ground near the Falls.

When his hut was exmmined, his fuithful dog was found guarding the door, and was with difficulty persuaded aside white it was opened; his cat occupird his bed; his guitar, violin, thates, musie-books, and portfolio, were scattered around in confiasion, but no papers relative to himself, or throwing any light upon his axtroordinary character, were to be found. He was a gentleman of highly-cultivated mind and manners, and finished education; master of several languages; well vorsed in the arts and seiences, and possessing, in an eminent degree, all the minor accomplishments of the gentleman. IIe performed on various musical instruments with great taste, and his druwings were very spirited. Many years of his life had been spont in truvelling. Ilr had visited Egypt and Palestine; had travelled through Turkey, Greece, Italy, Spain, Portugal, and France ; and had resided for considerable periods of time in Rome, Naples, und Paris. In all his travels, he said, he had mever met with ony thing that would compare, in sublimity, with the Falls of Niagara, except Mount Atma during an cruption. While at the Falls, business occasionally brought him in contact with some of the inhabitants, with a few of whom he would sometimes be sociable: to all others he was distant and reserved. At such times, his conversation wonld be of the most interesting kind, and his descriptions of people and countries were highly glowing and animated. But, at times, even with these, he would hold no conversation, communicating his wishes on a slate, and desiring not to be spoken to. Sometimes, for three or four months together, he would go unshaved, often with no covering on his head, lis body enveloped in a blanket, shunning all, and seeking the deepest solitudes of Goat Island. He was about twenty-eight yeurs of age, in person tall and well made, and of handsome features. When obliged to have any intercourse with others, he was generons in paying for all favors and services, never receiving any thing without making immediate payment. He had a deep and abiding sense of religious duty and decorum; was mild in his behavior, and inofliensive in his conduct. Religion was a subject which he appeared well to understand, and highly to appreciate. The charity he asked from others, he extended to all mankind.
Many spots on Goat Island are consecrated to his memory; at the upper end, he established his promenade, which became hard-trodden and well-beaten, like that in which the sentinel performs his round of duty. Betwern Goat and Moss Islands, embowered in seclusion and shade, is one of the most romantic and charming cascades imaginable. This was his favorite retreat for bathing, where he resorted at all seasons of the year, even in the coldest weather, when there was snow on the ground, and ice on the river. On Terrapin Bridge it was his daily practice to walk for hours together, from one extremity to the other, with a quick puce; and sometimes he would let himself down at the end of the projecting timber, which extends ten or fifteen feet beyond the Fall, and hang under it by his hands and feet over the terrific precipice, for fifteen minutes at a time. To the inguiry why he this exposed himself, he would reply, that in crossing the ocean, he had freguently seen the sea-boy, "on the high and giddy mast," perform far more periloas acts, and, as he should probably ngain pass the sea himself, he wished to inure himself to such dangers. If the nerves of others were disturbed, his were not. In the wildest hours of the night, he was often found walking alone, and without fear, in the most dangerous places near the Falls; and, at such tines, he would shun approach, as if he had a dread of man.

## 2.-Biddle Staircase.

Constructed in the year 1899, at the expense of Nicholas Biddle, Esq., of Philadelphia, to facilitate the deseent to the roeks at the foot of Gout Island, where magnificent and much-admired views of the Falls are obtained. The island is 185 feet above the gulf; the first 44 feet of the descent is in the alluvial soil and rock; the next 88 is a spiral wooden staircase, and the remaining distance the descent is by the sloping bank, in every direction, over immense fragments of rock, which have been broken off and tumbled from the ledge above. The construction of this descent has opened one of the finest fishing places in this part of the Union; the water being the resort of various fish which come up from Lake Ontario, and are stopped by the Falls. The notorious Sam Patch leaped from a ladder, 97 feet high, into the smooth water in front of this staircase, in October, 1829, and received no injury.

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Esq., of Philadelwhere magnificent 185. feet above the
the next 88 is a $y$ the sloping bank, en broken off and opened one of the sort of various fish Che notorious Sam front of this stair-

## 3.-Column of Vapor.

The mighty clouds of vapor which are thrown $u_{\text {' f }}$ from the Falls move with the wind, and descend in a nisty shower like rain; they are seen from a very great distance, appearing like a pillar of smoke. When the sum and the position of the observer are favorable, they present a remarkably beautiful appearance, sparkling like diamonds, with occasional flashes of the most brilliant colors, and a splendid rainbow.

## 4.-Terrapin Bridge.

A singular bridge or pier, 300 feet in length, has been constructed upon what are called the Terrapin Rocks, where a single piece of timber actually projects over the edge of the Great Fall about 10 feet. Although the prodigious magnitude of the falling water is not so apparent ss from below, yet, from the extremity of this bridge, standing, as it were, in the very midst of the mighty flood, the scene is terrific and appalling, and cannot be viewed without astonishment and awe, not unmixed with fear. A late writer says, "If the visitor is alone, and gives way to his feelings, he must fall on his knees, for the grandeur of the scene is overpowering."

## 5.-Rapids.

Before approaching the precipice, over which the water is precipitated, the river sinks, in little more than half' a mile, 58 feet, and the stratum of limestone, which forms its bed, is intersected with scams and patches of hard, dark-colored chert. Through this channel of ragged rocks the water rushes with terrific and ungovernable impetuosity, a fiercely-raging torrent, converted, by the resistance with which it mects, into a broad expanse of foam, as white as snow, bearing a strong resemblance to the breskers on a rocky shore during a gale. The inhabitants of the neighborhood consider it as certain death to get once involved in the Rapids; not only because escape from the eataracts would be hopeless, but because the force of the water amongst the rocks would probably destroy life before the Falls were approached. Instances are on record of the melancholy fate of persons who have thus perished. In the summer of 1891 , three men were removing furniture from Navy Island; the wind was high, and in the direction of the Falls; the current was consequently stronger than usual, and they thought it unsafe to cross so near the Falls. They fastened their boat, and went to sleep in it. By some means, it became loosened, and they discovered themselves already in the Rapids. No human power could save them; the boat was carried down, and in a few moments dashed to pieces. Some of the goods were picked up below, much broken; but a table foated ashore uninjured.

The celebrated Chateaubriand relates that he narrowly escaped a similar fate: he was viewing the Falls from the bank of the river, having the bridle of his horse twisted round his arm: a rattlesnake stirred in the neighboring bushes, and startled the horse, who reared and ran back wards towards the abyss. Not being able to disengage his arm from the bridle, he was dragged after him; the horse's fore legs were off the ground, and, squatting on the brink of the precipice, he was upheld merely by the bridie, when, ustonished by this new danger, he sudenly threw himself forward, and aprung to a distance of ten feet, again dragging Chateaubriand with him, who was thus released from his perilous situation.
In February, 1827, two men, who embarked in a bont to cross the river, were forced into the Rupids by the ice, precipitated into the abyss below, and dashed to pieces.
In September, 1827, a schooner, called the Michigan, with a number of wild animals inhumanly confined on ber deek, was towed to the inargin of the Rapids, and abandoned to her fate. She passed the first fall of the Rapids in safety, but struck a rock at the second, and lost her masts : there she remained an instant, until the current turned her round, and bore her away. A bear here leaped overboard, and swam to the shore. She then filled, and sunk, so that only her upper works were visible, and she went over the cataract almost without being scen. In a few moments her fragments, which were broken very small, covered the basin below. A eat and a goose were the only animals found alive. In October, 18\%), the schooner Superior was towed into the current, and abandoned; but she struck on a rock, about the middle of the river, where she remained a considerable time, and finally went over the Falls in the night.

## 6.-Crescent or Horse-shoe Fall.

The Crescent or Horse-shoe Fall, as it is generally termed, from the precipice having been worn by the water into some what of that form, is 154 feet in perpendicular height; in consequence of its shape, the water converges to the centre, where it descends in a solid mass at least 12 feet in thickness, being driven forward with an impetus that hurls it into the gulf below, 50 feet from the base of the rock. For nearly two thirds of its descent, the water in the centre falls in one vast, unbroken mass, smooth and unruffled, and of a beautiful green color: the remainder is hidden by the vast body of vupor, ascending from the abyss. Tine whole surface of the river appears a body of foam, differing essentially from any thing of the kind produced in a similar way: the bubbles of which it is universally composed are extremely small, are always ascending by millions, snd spread over the water in one continued and apparently solid mass. The water is also projected upwards, sometimes to the height of 120 feet, by the force of the air below. in an inmense number of small white cones, with pointed heads, their tails varying from one to twelve yards, stretching in every direction, which may be seen continually starting from the oloud of spray.

From Goat Island to Table Reek, the distance in a straight line is 1221 feet, but following the curvature of the Fall, which is an irregular segment of a circle, with a deep angular gash near the centre, it is $2: 376$ feet, which vast width detracts most surprisingly from its apparent height. The tremendous noise occasioned by this vast body of water falling on the rocks below is of a most extraordinary description. Capt. Hall compares it to the incessant rumbling, deep, monototous sound, accompanied by the tremor, which is observable in a grist-mill of very large dimensions, where many pairs of stones are at work ;-Mr. MeTaggart, to the tumbling of a vast quantity of harge round stones, from a huge precipice into water of a profound depth. A slight tremulons motion of the earth is felt to some distance on all sides, but is more particularly observable on Goat Island : the noise may be heard, when the atmosphere is favorable, fifty miles.

## 7.-Cavern behind the Sheet of Water at Table Rock.

The violence of the impulse causes the water of the Great Fall to incline censiderably forward in its descent, and the continual action on the shale has hollowed out the rock below, leaving the upper or hardest stratun hanging over in a very perilous manner, above 50 feet, forming a sort of cavern, into which travellers are able to penetrate as far as Termination Rock, an impassable mass, 155 feet from the entrance. The passage into this cavern is rather difficult; but it is the place of all others to contemplate the extraordinary sight. The rush of the water here is awful, the thondering sound tremendous; but the slippery and rugged rocks, the difficulty of respiration, and the blasts of air, which is carried down in vast quantities by the river, and rises again with propor tionate velocity in every direction, with the quantity of spray which accompanies its ascent, renders it unpleasant to remain any length of time.

## 10.-Pavilion Hotel.

A large and commodious house, on the heights above the Falls, containing excellent accommodations for about 150 persons. From the top of this house, and from the galleries or verandahs in the rear, which are ranged one above the other, a fine view is obtained; the surrounding country, the upper course of the river for several miles, the Rapids, and the Falls, being seen at the same time: the lower part of the Fall is of course invisible, but the imagimation cannot picture it more grand than it really is. A foot-path, laid with planks, winds from the upper bank, on whieh the house is situated, through the narrow, marshy slip which forms the immediate margin of tho river, to Table Rock.

The Canadian side is exquisitely beautiful, richly cultivated, and thickly inhabited: the ground is extremely fertile, and the rapid progress of population, business, and the arts, created by the Welland Canal, and its collateral works, and its inexhaustible water power, will soon render it one of the most important parts of the British dominions. Mr. Forsyth, who was the first proprietor of the hotel on this side, has recently disposed of his hotel and surrounding property, to a company of gentlemen, who have planned a city, and propose erecting churches, schools, ball and promenade rooms, public gardens, libraries, and houses of various sizes, so as to form a place of fashionable resort, to be called "The City of the Falls."

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## 11 \& 17.—Table Rock.

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A broad, flat rock, forming a platform of considerable area, on the same level, and in immediate contact with the western extremity of the great ledge, over which the stream is precipitated; being 180 feet below the upper bank. It is undoubtedly one of the best, If not the very best point for viewing this magnificent scene, as the eye commands at once the whole of tho majestic amphitheatre of cataracts, as well as the various stations on both sides of the river, a considerable distance. The rocks having fallen awny from bencath, the surface projects several feet over the abyss. Visitors possessed of strong nerves, frequently lay themselves flat on the rock, with the face beyond the edge, looking from this fearful leight into the roaring abyss below. The Table Rock is a favorite place for strangers to inscribe their initials or names, with the date of their visit; but it is probable that posterity will not be much benefited by this ingenuity, as the rock has many considerable seams and fissures, and a long slip, a few yards below, fell, with a tremendous crash, in August, 1818. This mass, which was It 00 feet in length, and from 30 to 40 in breadth, providentinlly fell during the night, or many lives might have been lost, as the pathway to the guide's house passed over it: a portion of it, 15 feet long, lies in the river below, and is delineated in the Picture, (No. 27.)

## 15.-Staircase.

In the rear of the dwelling of the guide, who provides visitors with suitable dresses, and attends them to the cavern behind the Great Fall, a convenient stnirease descends from the platform to the sloping shore of the water below, and a rough and slippery path, over fragments of fallen rock, conducts to the foot of the Fall. From the river the Fall has an extraordinary appearance ; no part of the Rapids being seen, the water appears to be poured perpendicularly from the clouds.

## 18.-Path to the Ferry.

A convenient road or path, which greally facilitates the approach to the Ferry, and forms an agrecable promenade ; it proceeds about half a mile in a direct line, when; turning short round, it descends, in a safe and cesy manner, to the margin of the river.
19.-Ferry.

About lalf a mile below the Horse-shoe, and a few rods below the Schlosser Fall, the siver, which is there 76 rods in width, is safely crossed in a small boat. Although the water is considerably agitated, the ferrymen eross, without danger, at any time of the day, in about five ninutes; but when the wind blows down the stream, the passengers seldom escape without a complete soaking from the spray of the Falls, which descends like rain. The comparative sinoothness of the river so immediately after the Fall, is accounted for by the great depth of the pool into which the cataract is precipitated, and the sudden contraction of the river; the descending water sinks down and forms an under current, while a superficial eddy carries the upper stratum back to the Fall.
The banks of the river are here remarkably wild and striking, and the view from this place is of the most gorgeous description, and of most surpassing grandeur.

## 20.-Niagara County.

The banks of the strait, for a considerable portion of its course on the United States' side, are in the county of Niagara. The roads on both sides are separated from the preelpitous banks, in many places, only by a narrow slip of woods, and the country around is most beautiful, being a succession of fertile fields, orchards, and gardens.
At a short distance below the Falls is a small territory, belonging to the remnant of the once-powerful tribe of Tuscarora Indians, who emigrated from North Carolina about the beginning of the last century, at the invitation of the Five Nations, into whose confederacy (which then received the title of the Six Nations) they were received: they have a Protestant missionary resident amongst them, and many lave voluntarily adopted Christianity : several of their farms are handsome and well cultivated.

## 22.—Schlosser Fall.

The Fall on the United Statea' side, called the Fort Schlosser Fall, ia $\mathbf{1 6 7}$ feet in perpendicular height; and although it is in reality 13 feet higher than the Great Fall, yet from the Table Rock it appears otherwise. This is partly from the effeet of the perspective, and partly from the accumulation of rocks below, upon which the water breaks. The whole width of the Fall to Prospect Ialand is 924 feet. Its edge is very much indented, and it appears to be gradually assuming the horse-shoe shape. It is chafed to snowy whiteness by projecting rocks, which break its fall in aeveral places to two thirds of its descent ; but it does not approach in extent, sublinity, or awful beauty, to the Great Crescent or Horse-shoe Fall.

About 64 rods above the erest of this Fall-and of course not seen in the present view-are two bridges, of admirablo construction, crossing the worst part of the Rapids on this aide, to Goat Island, which was before only accessible, at great personal riak, by dropping down the river between the two currents: much boldness of conception, skill, and ingenuity, were shown in the construction of this bridge, by its spirited projector, Hon. Augustus Porter, the principal proprictor of the United States' side of the Falls.

## 23.-Prospect Island.

On the verge of the precipiec, near Goat Island, Prospect Island cuts off a portion of the waters, forming the Central Fall. This island is about 10 yards in width, and is connected with Goat Island by a foot bridge. It is a romantic spot; and from it is presented the best prospect (whence its name) of the Schlosser Fall which can any where be obtained.

## 24.—Village of Niagara Falls.

The rapidly-increasing village of Niagara Falls (formerly called Manchester and Grand Niagara) is situated st the Falls, on the United States side. Two large hotels, the Eagle and Cataract, are kept here, and the foundation of a third, on a very extensive scale, was laid in 1836. These hotels, as well as those on the Canada side, are crowded with visitors during the travelling season; and constant communiestion is kept up with various parts by rail-roads and well-appointed stage-coaches. This village was burnt by the British troops in 1813, and was rebuilt after the peace.

## 25.-Central Fall.

This is a very picturesque cascade,-sometimes called the Ribben Fall, and sometimes dignified with the title of the Montmorency Fall,-which, however insignificant it may here appear, amid the mighty rush of waters, would rank high amongst European Cataracts.

Behind this Fall, is a splendid cavern, (No. 26,) similar to that behind the great sheet of water at Table Rock. It was never trodden by human feet previous to July, 1834, when it was explored by Mr. Joseph W. Ingraham, of Boston, who gsve it the very appropriate name of "Cave of Folus," or "Cave of the Winds," in allusion to that "vasto rex Æolus antro," described by Virgil. It is about 50 feet in breadth, from 100 to 150 feet around its floor, and about 100 feet high, and furnishes one of the most splendid views which the imagination can conceive. The visitor may easily pass several feet behind this Fall, and gain a view of the cavern, from the path constructed in the reck, and there, "standing, as he does, about midway in the descent of the Fall, he may look up 80 feet, to its arched and erystal roof, and down, 80 feet, upon its terrible, and misty, and resounding floor. He will never forget that sight and sound."



[^0]:    of painting, might produre a piclure which would probably distance every thing else of the kind." "The ask must be done by a person who shall go to the spot for the express purpose, making the actual drawings, which lee limself is anferwards to convert into a Panorama, whicl, if well executed, could not fail to impart some portion of the pleasure commumicaled by the reality." The same traveller, having seen the painting in progress, has expressed the following opinion:"The Panormana of Niagara, though uot completed, is sufficienilly advanced to enatle any one who has seen it to judge of the effect; and I lave no hesilation in saying, you have arcomplished a task which 1 hardly hoped to see executed ; 1 think your painting gives not only an exceedingly accurate, but a mosi animated view of the Falls."

    * Its greatest width is across the centre of Owanungah, or Grand Island, which is about 6 miles across, and divides the river imto two parts for about 10 miles, the branch on each side of it being from t 01 mile in width. The broadest expanse of vater is below Grand Island, where it resembles a beautifu bay, about 2 q miles broad.-Ingraham's Manual.

[^1]:    * Dr. Dwight calculates the river at the ferry, seven furlongs wide, and $\mathbf{2 5}$ feet deep, romniug never less than six miles per hour: the quantity of water that passes in that time is consequently above $102,(000,000$ of tons a voirdupois.
    $\dagger$ Lake Nuperior, the largest fresh-water lake in the world, is $\mathbf{1 7 5 0}$ miles in cireumference; its mean dejith is 900 feet, its greatest depth 1200 feet; and its surface is 641 feet above the level of the sea. Lake Huron is 1000 miles in circumference; has about the same depthas Lake Superior, and is 596 feet alrove the level of the sea : lake Nichigan has the same level and depth as lake Huron, and is 731 miles in circmonference : Lake Erie is 658 miles in circunference, 565 feet alove the sea, and has only a mean depilh of 120 feet.
    $\ddagger$ These recessions, however, were in the angle or curve of the Crescent or Horse-shoc Fall ; but there is no evidence that there has been any recession at the sides of the Falls, within the memory of man.

